

WORKING DRAFT

Personal Protective Equipment (Percutaneous—Apparel)

General

Name

Toxicological Agent Protective (TAP) Boot

Item # 1



Technology

Extruded butyl material, hand assembled

Stock Number

8430-00-820-6301

Protection Type

NBC Resistant—24 h

Equipment Category

Footwear

Availability

In production

Current User(s)

U.S DOD and clean-up teams

Manufacturer

Acton International Inc.

881 Landry

Acton Vale, Quebec

J0H 1A0

450-546-2776 (Tel)

450-546-3735 (Fax)

Acton International Inc.

Manufacturer Type

Developer

Natick (Acton International Inc.)

Source

Acton International Inc.

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

All known agents

Agents Protected Against

Biological Warfare (BW)

All known agents

Agents Protected Against

Toxic Industrial (TIMs)

Not applicable

Protected Against

Duration of Protection

24 h (8 h U.S. Specification (Spec.) Requirements)

Recommended Use(s)

Clean-up operations, at incinerators, and toxic area clean-up

Physical Parameters

Sizes Available

5 through 17

Weight

5.6 lb per pair

Package Size and Volume

23 in x 1 in x 15 in

Power Requirements

Not applicable

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Material Type	Butyl
Construction Type	Hand-assembled
Color	Black, yellow toe

Logistical Parameters

Ease of Use	Not applicable
Consumables	Not applicable
Maintenance Requirements	Not applicable
Shelf Life	5 yr to 10 yr
Transportability	Not applicable
Operational Limitations	Not applicable
Environmental Conditions	-24 °F to 95 °F
Unit Cost	\$75
Maintenance Cost	Not applicable
Warranty	1 yr
Don/Doff Information	Over sock
Use/Reuse	Can be reused
Laundryability	Soap and water
Accessories	Not applicable

Special Requirements

Training Requirements	Not applicable
Training Available	Not applicable
Manuals Available	Not applicable
Surveillance Testing Requirements	Not applicable
Support Equipment	Not applicable
Testing Information	CW test reports available (to 8 h requirement)
Applicable Regulations	Not applicable
Health Hazards	Not applicable
Communications Interface Capability	Not applicable
EOD Compatibility	Steel toe

WORKING DRAFT

General

Name

NBC Multi-Purpose Safety Boot

Item # 2



Technology

Multi-layer polymer laminated with a nitrile chloroprene blend layer. Removable felt antistatic liner. Hand-assembled rubber footwear. Not specified

Stock Number

Protection Type

24 h NBC protection, meets EC requirements for firefighting boots (EN345-2: 1997). Steel toe, steel plate, and antistatic footwear

Equipment Category

Footwear

Availability

In production

Current User(s)

Raddningsverket (SRV)

Sweden

Manufacturer

Acton International Inc.

881 Landry

Acton Vale, Quebec

J0H 1A0

450-546-2776 (Tel)

450-546-3735 (Fax)

Foreign

Manufacturer Type

Developer

Acton International Inc.

Source

Acton International Inc.

Certification

EN 345-2: 1997

Operational Parameters

Chemical Warfare (CW)

All known agents

Agents Protected Against

Biological Warfare (BW)

All known agents

Agents Protected Against

Toxic Industrial (TIMs)

POL (oil, fuel)

Protected Against

Duration of Protection

24 h

Recommended Use(s)

Clean-up, construction, firefighting, oilspills, and NBC activities

Physical Parameters

Sizes Available

38 to 46 (French Point)

Weight

5 lb per pair size 43 (9)

Package Size and Volume

Each pair is in a bag; 5 to 7 pairs per box depending on boot size; box dimensions are 24 in x 16 in x 16 in

Power Requirements

Not applicable

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Material Type	Butyl rubber layer, laminated with a nitrile chloroprene blend layer
Construction Type	Hand-assembled, extruded and calandered rubber, and autoclave cured
Color	Black

Logistical Parameters

Ease of Use	Not applicable
Consumables	Not applicable
Maintenance Requirements	Not applicable
Shelf Life	10 yr to 15 yr
Transportability	Not applicable
Operational Limitations	Not applicable
Environmental Conditions	-4 °F to 95 °F
Unit Cost	\$65
Maintenance Cost	Not applicable
Warranty	1 yr
Don/Doff Information	Over the sock (pull on)
Use/Reuse	Not applicable
Laundryability	Soap and water
Accessories	Removable lining

Special Requirements

Training Requirements	Not applicable
Training Available	Not applicable
Manuals Available	Not applicable
Surveillance Testing Requirements	Not applicable
Support Equipment	Not applicable
Testing Information	CW test report from FOA Sweden available
Applicable Regulations	Not applicable
Health Hazards	Not applicable
Communications Interface Capability	Not applicable
EOD Compatibility	Anti-static, steel toe

WORKING DRAFT

General

Name

Acton Basic NBC Overboot

Item # 3



Technology

Extruded butyl compounded upper, lace closure at top

Stock Number

Not specified

Protection Type

24 h NBC protection and static

Equipment Category

Footwear, hand-assembled, and rubber footwear

Availability

Developed

Current User(s)

None: New inexpensive product being introduced in Europe

Manufacturer

Acton International Inc.
881 Landry
Acton Vale, Quebec
J0H 1A0
450-546-2776 (Tel)
450-546-3735 (Fax)
Foreign

Manufacturer Type

Developer

Acton International Inc.

Source

Acton International Inc.

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

All known CW agents

Agents Protected Against

Biological Warfare (BW)

All known CW agents

Agents Protected Against

Toxic Industrial (TIMs)

Not applicable

Protected Against

Duration of Protection

24 h

Recommended Use(s)

In conjunction with NBC suits in theatres of operation requiring full protection

Physical Parameters

Sizes Available

XS, S, M, L, XL, and XXL (covers primary footwear sizes 4 to 15)

Weight

2.2 lb per pair

Package Size and Volume

Various

Power Requirements

Not applicable

Material Type

Butyl rubber

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Construction Type	Extruded butyl compounded upper, lace closure at top. Hand-assembled.
Color	Black

Logistical Parameters

Ease of Use	Not applicable
Consumables	Not applicable
Maintenance Requirements	Not applicable
Shelf Life	10 yr to 15 yr
Transportability	Not applicable
Operational Limitations	Not applicable
Environmental Conditions	-31 °F to 122 °F
Unit Cost	\$20
Maintenance Cost	Not applicable
Warranty	1 yr
Don/Doff Information	Over primary footwear
Use/Reuse	Can be decontaminated (liquid)
Launderability	Soap and water
Accessories	Elastic loop fasteners

Special Requirements

Training Requirements	Not applicable
Training Available	Not applicable
Manuals Available	Not applicable
Surveillance Testing Requirements	Not applicable
Support Equipment	Not applicable
Testing Information	CW and physical property test reports can be made available
Applicable Regulations	Not applicable
Health Hazards	Not applicable
Communications Interface Capability	Not applicable
EOD Compatibility	Anti-static

WORKING DRAFT

General

Name

Acton Lightweight NBC Overboot

Item # 4



Technology

Extruded butyl material, elastic loop closure system, anti-static, snug fit, and can be decontaminated. Hand-assembled, extruded rubber.

Stock Number

8430-99-869-0394 to 0399; 8430-99-869-0538 to 0543

Protection Type

NBC Resistant - greater than 24 h, can be decontaminated

Equipment Category

Footwear

Availability

In use worldwide - some stock maintained, large order produced per order

Current User(s)

United Kingdom (UK) MOD, Canadian DND, Australian DOD, New Zealand Armed Forces, OPCW, Kuwait MOD, and the National Guard

Manufacturer

Acton International Inc.

881 Landry

Acton Vale, Quebec

J0H 1A0

450-546-2776 (Tel)

450-546-3735 (Fax)

Foreign

Manufacturer Type

Developer

Acton International Inc.

Source

Acton International Inc.

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

All known agents

Agents Protected Against

Biological Warfare (BW)

All known agents

Agents Protected Against

Toxic Industrial (TIMs)

Not applicable

Protected Against

Duration of Protection

>24 h

Recommended Use(s)

All applications dealing with CW agents, armed forces, special operations, labs, and inspection teams.

Physical Parameters

Sizes Available

6 sizes: XS, S, M, L, XL, and XXL. Fit over primary sizes 4 to 15.

Weight

2.6 lb per pair average size (M)

Package Size and Volume

Bag: 1.6 in x 0.6 in x 0.3 in max (1pair per bag)

Carton: 17 in x 13 in x 13 in (10 pair per carton)

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Power Requirements	Not applicable
Material Type	Butyl, extruded
Construction Type	Hand-assembled. Extruded butyl material, elastic loop closure system, anti-static, snug fit, and can be decontaminated.
Color	Black

Logistical Parameters

Ease of Use	Not applicable
Consumables	Not applicable
Maintenance Requirements	Not applicable
Shelf Life	10 yr to 15 yr
Transportability	Not applicable
Operational Limitations	Not applicable
Environmental Conditions	-31 °F to 122 °F
Unit Cost	\$28 to \$32 depending on features
Maintenance Cost	Not applicable
Warranty	1 yr
Don/Doff Information	Over primary footwear
Use/Reuse	Can be decontaminated
Laundryability	Soap and water
Accessories	Elastic loops

Special Requirements

Training Requirements	Not applicable
Training Available	Not applicable
Manuals Available	Not applicable
Surveillance Testing Requirements	Not applicable
Support Equipment	Not applicable
Testing Information	CW and physical property test report available
Applicable Regulations	Not applicable
Health Hazards	Not applicable
Communications Interface Capability	Not applicable
EOD Compatibility	Anti-static

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General

Name

CB Molded Glove With Liner

Item # 5



Technology

Accurate thin molding, excellent fit

Stock Number

Not specified

Protection Type

CW resistant; also POL resistant and antistatic models available

Equipment Category

Gloves, molded

Availability

Final prototypes - May 2000

Current User(s)

Not applicable—new Technology introduced in 2000

Manufacturer

Acton International Inc.

881 Landry

Acton Vale, Quebec

J0H 1A0

450-546-2776 (Tel)

450-546-3735 (Fax)

Foreign

Manufacturer Type

Developer

Acton International Inc., and Defense Research Establishment

Suffield (DRES)

Acton International Inc.

Source

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

All known agents

Agents Protected Against

Biological Warfare (BW)

All known agents

Agents Protected Against

Toxic Industrial (TIMs)

One model will be POL resistant

Protected Against

Duration of Protection

12 h to 24 h depending on polymer and thickness

Recommended Use(s)

With all types of NBC Suits, for medical work, in labs, and in military theaters

Physical Parameters

Sizes Available

7 sizes (S, M, M-Narrow, L, L-Narrow, XL, and XL-Narrow)

Weight

200 g/pair, glove, and liner

Package Size and Volume

1 pair per bag, unknown quantity per box

Power Requirements

Not applicable

Material Type

Butyl or nitrile/chloroprene

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Construction Type

Molded

Color

Black, other colors can be manufactured for large orders

Logistical Parameters**Ease of Use**

Not applicable

Consumables

Not applicable

Maintenance Requirements

Not applicable

Shelf Life

10 yr to 15 yr

Transportability

Not applicable

Operational Limitations

Not applicable

Environmental Conditions

5 °F to 122 °F

Unit Cost

\$8 to \$20 per pair

Maintenance Cost

Not applicable

Warranty

1 yr

Don/DoFF Information

Molded glove can be worn directly over hand or with its liner

Use/Reuse

Not applicable

Laundryability

Soap and water

Accessories

Coolmax, lycra removable liner

Special Requirements**Training Requirements**

Not applicable

Training Available

Not applicable

Manuals Available

Not applicable

Surveillance Testing Requirements

Not applicable

Support Equipment

Not applicable

Testing Information

CW test information shall be available in 2nd half of year 2000

Applicable Regulations

Not applicable

Health Hazards

Not applicable

Communications Interface Capability

Not applicable

EOD Compatibility

Snug fit, antistatic model

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General

Name	<i>Ansell Sol-Vex Gloves</i>
Item # 6	Picture Not Available
Technology	Nitrile polymer
Stock Number	Ansell Stock No. 37-175
Protection Type	Percutaneous
Equipment Category	Gloves
Availability	Commercially available
Current User(s)	Industrial end-users worldwide
Manufacturer	Ansell Occupational Healthcare 1300 Walnut Street Coshocton, OH 43812 740-622-4311 (Tel) 800-800-0444 (Tel) 800-800-0445 (Fax)
Manufacturer Type	Global
Developer	Ansell Occupational Healthcare
Source	Internet: www.r-e-c.com Response Equipment Co., a subsidiary of EAI Corporation
Certification	ASTM standards; FDA—accepted materials

Operational Parameters

Chemical Warfare (CW)	Not recommended
Agents Protected Against	
Biological Warfare (BW)	Not recommended
Agents Protected Against	
Toxic Industrial (TIMs)	High level of protection vs. petroleum solvents, many caustics and acids, animal fats, and edible oils. Fair protection vs. aromatic solvents and esters. Not recommended for ketones.
Protected Against	
Duration of Protection	Depends on concentration, time/length of exposure, other application factors. See Manufacturer's Guide CRG-CG-Rev. 9-98.
Recommended Use(s)	Chemical resistance

Physical Parameters

Sizes Available	6-6 1/2 or 7-7 1/2 to 11; lengths: 13 in, 15 in, and 18 in
Weight	Depends on size
Package Size and Volume	1.77 ft ³ full case (144 pair per full case)
Power Requirements	None
Material Type	Nitrile polymer
Construction Type	Not specified

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Color

Green

Logistical Parameters

Ease of Use	Highly flexible
Consumables	None
Maintenance Requirements	None
Shelf Life	Indefinite when stored in original wrapper
Transportability	Not applicable
Operational Limitations	Not specified
Environmental Conditions	Normal indoor and outdoor temperatures
Unit Cost	Price set by distributors
Maintenance Cost	None
Warranty	Guaranteed against defects in workmanship and materials, and subject to proper storage and handling
Don/Doff Information	No assistance necessary
Use/Reuse	Reusable
Launderability	Not recommended
Accessories	None

Special Requirements

Training Requirements	None
Training Available	None required
Manuals Available	None required
Surveillance Testing Requirements	Visual inspection before and after each use
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	Not specified
Health Hazards	Contains no natural rubber latex
Communications Interface Capability	Not applicable
EOD Compatibility	Not specified

WORKING DRAFT

General

Name

Bata HazMat Boots

Item # 7



Technology

Nonabsorbent polyester lining

Stock Number

87012—16 in, steel toe boot with Ultragrip® Sipe Sole

87050—17 in, strapper with self-cleaning cleated sole

Protection Type

Percutaneous

Equipment Category

Boots (HazMat)—16 in oversock, kneeboots

Availability

Not specified

Current User(s)

Not specified

Manufacturer

Bata Shoe Co., Inc.

4501 Pulaski Highway

Belcamp, MD 21017

POC: Joseph W. Diem

800-365-2282 (Tel)

410-272-2000 Ext.117 (Tel)

Manufacturer Type

Manufacturer of polyvinyl chloride (PVC) work boots - Industrial polymer safety footwear

Developer

Bata Shoe Co., Inc.

Source

Bata Shoe Co., Inc.

Certification

NFPA 199, 2000 Edition, Chemical Permeation Resistance Requirements and Flammability Resistance Tests; ANSI Std Z41-PR, Z41 Pt99 I/75 C/75; and CSA Std Z195 M92 Grade 1

Operational Parameters

Chemical Warfare (CW)

Agents Protected Against

Certified for chemical terrorism incidents for the following CW agents: Cyanogen chloride, lewisite, sarin, V-agents, and sulphur mustard, distilled

Biological Warfare (BW)

Agents Protected Against

Certified for biological terrorism incidents, protects against some biological agents

Toxic Industrial (TIMs)

Protected Against

Protects against a variety of TIMs

Duration of Protection

Varies with chemical, most greater than 6 h

Recommended Use(s)

HazMat

Physical Parameters

Sizes Available

Men's full sizes 6 to 15

Weight

Not specified

Package Size and Volume

Not specified

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Power Requirements

None

Material Type

Nonabsorbent polyester lining

Construction Type

Steel toe, full steel mid-sole, and seamless construction

Color

Chemical, green upper with yellow soles

Logistical Parameters

Ease of Use

Not specified

Consumables

None

Maintenance Requirements

The integrity and safety of the boot product can be maintained through proper cleaning, storage, and inspection procedures. Repairs are not recommended.

Shelf Life

Shelf life is diminished under storage conditions such as high temperature and humidity, over exposure to sunlight, vapors or cross contamination of other garments, and storage containers or tools

Transportability

Not applicable

Operational Limitations

Not recommended that the boots be worn in chemical depths that might result in the chemical being splashed into the top of the boot

Environmental Conditions

Protects in normal environments

Unit Cost

Not specified

Maintenance Cost

None

Warranty

Reference the Bata product literature for any warranty information

Don/Doff Information

No assistance necessary

Use/Reuse

Reusable

Launderability

Use only a mild soap solution to clean the boots, avoid chemical cleaning agents that may attack the boot product, avoid using unless thoroughly cleaned and tried

Accessories

Nonabsorbent polyester lining

Special Requirements

Training Requirements

None

Training Available

None required

Manuals Available

None required

Surveillance Testing

Visual inspection before and after each use

Requirements

Support Equipment

Recommended undergarments: A minimum of cotton socks

Testing Information

Chemical permeation tests in accordance with ASTM F-739; flammability resistance test in accordance with Federal Test Method 5903.1

Applicable Regulations

Not specified

Health Hazards

None

Communications Interface

Not specified

Capability

EOD Compatibility

Not specified

WORKING DRAFT

General

Name

Item # 8

Bata Boot/Shoe Covers



Technology

0.70 mm latex rubber

Stock Number

97590/97591

Protection Type

Percutaneous

Equipment Category

Boots/shoe covers

Availability

Available from stock

Current User(s)

Hazardous materials handling

Manufacturer

Bata Shoe Co., Inc.
4501 Pulaski Highway
Belcamp, MD 21017
POC: Joseph W. Diem
800-365-2282 (Tel)

410-272-2000 Ext. 117 (Tel)

Manufacturer Type

Manufacturer of PVC work boots - Industrial polymer safety footwear

Developer

Bata Shoe Co., Inc.

Source

Bata Shoe Co., Inc.

Certification

NFPA 199, 2000 Edition, Chemical Permeation Resistance Requirements and Flammability Resistance Tests

Operational Parameters

Chemical Warfare (CW)

Chemical terrorism incidents with cyanogen chloride, lewisite, sarin, V-agents, and sulphur mustard, distilled

Agents Protected Against

Biological Warfare (BW)

Biological terrorism incidents, protects against some biological agents

Agents Protected Against

Toxic Industrial (TIMs)

Protects against a variety of TIMs

Protected Against

Duration of Protection

Varies with chemical, most greater than 6 h

Recommended Use(s)

Protection from a broad range of materials, both hazardous and non-hazardous

Physical Parameters

Sizes Available

M to 2XXL

Weight

Lightweight

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Latex rubber

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Construction Type None required

Color Yellow

Logistical Parameters

Ease of Use Slip-on/slip-off

Consumables None

Maintenance Requirements None

Shelf Life None required

Transportability Not applicable

Operational Limitations Not specified

Environmental Conditions Protects in normal environments

Unit Cost Not specified

Maintenance Cost None

Warranty Not specified

Don/Doff Information No assistance necessary

Use/Reuse Durable enough to be worn many times

Launderability Not specified

Accessories None

Special Requirements

Training Requirements None

Training Available None required

Manuals Available None required

Surveillance Testing Requirements Visual inspection before and after each use

Support Equipment None

Testing Information None required

Applicable Regulations Not specified

Health Hazards None

Communications Interface Not specified

Capability

EOD Compatibility Not specified

WORKING DRAFT

General

Name	<i>Butyl Plus—NBC/Toxic Protective Glove</i>
Item # 9	Picture Not Available
Technology	Impermeable butyl/neoprene
Stock Number	NATO# 8415–99–130–9429 to 9434; Mfg# 39113–39116
Protection Type	Skin protection from Military CB Agents, ketones and esters; also resists oil/petroleum products
Equipment Category	Five finger protective glove with gauntlet
Availability	Full production. Delivery: 30 d to 60 d after order.
Current User(s)	Full commercial use and NATO and U.S. military use
Manufacturer	COMESSEC Safety Inc.
Manufacturer Type	Private, Foreign/USA
Developer	COMESSEC Safety Inc.
Source	Sales: INDEF Services Intl 14847 Lee Highway Amissville, VA 20106–0089 540–937–7327 (Tel) 540–937–7328 (Fax) indefsteve@msn.com
Certification	Meets OSHA PPE and NATO Military Standard

Operational Parameters

Chemical Warfare (CW)	All Military CW agents
Agents Protected Against	
Biological Warfare (BW)	All Military BW agents
Agents Protected Against	
Toxic Industrial (TIMs)	Wide range of toxics including: ketones, acetates, ethylenes, and esters
Protected Against	
Duration of Protection	Minimum 8 h against NATO standard challenge
Recommended Use(s)	Tactical operations, CBW response teams, and decontamination teams. Used with CB protective ensembles by ground personnel, air crews, and vehicle operators.

Physical Parameters

Sizes Available	S, M, L, and XL
Weight	10 oz (approximately)
Package Size and Volume	16 in x 5 in x 1 in—0.07 cuff
Power Requirements	None
Material Type	Impermeable butyl/neoprene rubber
Construction Type	Solvent dipped
Color	Available: black

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Logistical Parameters

Ease of Use	Simple pull on—no training required
Consumables	None
Maintenance Requirements	None
Shelf Life	Estimated 4 yr to 5 yr
Transportability	Not applicable
Operational Limitations	Not for use near open flame
Environmental Conditions	0 °F to +140 °F. Maintains protection if wet.
Unit Cost	\$26/pair
Maintenance Cost	None
Warranty	Replacement if manufacturing flaw found upon initial use within 12 mo of purchase
Don/Doff Information	Glove is worn over skin. Can don without assistance.
Use/Reuse	Use estimated 14 d in normal wear. Can be decontaminated.
Laundryability	Able to be reused when decontaminated
Accessories	None

Special Requirements

Training Requirements	None
Training Available	None required
Manuals Available	None required
Surveillance Testing Requirements	Recommend periodic test of sample from each lot after 24 mo to 36 mo
Support Equipment	None
Testing Information	Meets NATO Standard Test Requirement for CB ensemble
Applicable Regulations	NATO/UK Spec. SC/4985B, MIL G-12223J and OSHA PPE Std.
Health Hazards	None
Communications Interface Capability	Not applicable
EOD Compatibility	Yes

WORKING DRAFT

General

Name	<i>Multi Plus—HazMat/Toxic Protective Glove</i>
Item # 10	Picture Not Available
Technology	Impermeable PVC/nitrile coated, interlock knit lining
Stock Number	Mfg #32443–32446 14 in length, #32663–32666 16 in length
Protection Type	Skin protection from HazMat/toxics also resists oil/petroleum products
Equipment Category	HazMat/toxic five-finger protective glove with gauntlet. Good wet/dry grip and perfect fit
Availability	Full production delivery: 30 d to 60 d after order
Current User(s)	Full commercial use
Manufacturer	COMESSEC Safety Inc.
Manufacturer Type	Private, Foreign/USA
Developer	COMESSEC Safety Inc.
Source	Sales: INDEF Services Intl. 14847 Lee Highway Amissville, VA 20106–0089 540–937–7327 (Tel) 540–937–7328 (Fax) indefsteve@msn.com Meets OSHA PPE
Certification	

Operational Parameters

Chemical Warfare (CW)	Not tested
Agents Protected Against	
Biological Warfare (BW)	Not tested
Agents Protected Against	
Toxic Industrial (TIMs)	Protects against multiple TIMs. Wide range of toxics including: acids, oils, petroleum, and solvents.
Protected Against	
Duration of Protection	Minimum 8 h in presence of toxics. Recommend use with under glove if direct handling required.
Recommended Use(s)	HazMat response teams, HazMat decontamination teams

Physical Parameters

Sizes Available	14 in length and 16 in length available—S, M, L, and XL
Weight	10 oz (approximately)
Package Size and Volume	16 in x 5 in x 1 in—0.07 cuff
Power Requirements	None
Material Type	Impermeable PVC/nitrile coated, interlock knit lining
Construction Type	Not specified
Color	Blue

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Logistical Parameters

Ease of Use	Simple pull on - no training required
Consumables	None
Maintenance Requirements	None
Shelf Life	Estimated 3 yr to 5 yr
Transportability	Not applicable
Operational Limitations	Not for use near open flame
Environmental Conditions	-20 °F to +140 °F. Maintains protection if wet.
Unit Cost	\$5/pair to \$7.50/pair
Maintenance Cost	None
Warranty	Replacement if manufacturing flaw found upon initial use within 12 mo of purchase
Don/Doff Information	Glove is worn over skin. Can don without assistance. Can be worn with Silvershield (manufactured by North for extra protection if direct handling of HazMats required).
Use/Reuse	Recommend disposal after contamination
Laundryability	Able to be cleaned and reused
Accessories	None

Special Requirements

Training Requirements	None
Training Available	None required
Manuals Available	None required
Surveillance Testing Requirements	Recommend periodic test of sample from each lot after 36 mo
Support Equipment	None
Testing Information	Meets OSHA PPE Standards
Applicable Regulations	OSHA, PPE Std.
Health Hazards	None
Communications Interface Capability	Not applicable
EOD Compatibility	Yes

WORKING DRAFT

General

Name	<i>Chemical Biological Protective Sock</i>
Item # 11	
	Picture Not Available
Technology	Permeable filter layer (CB filter material) with integrated outer face polyamide fabric and inner polyamide/cotton, all bonded in laminate CBPS01—(standard sock)
Stock Number	
Protection Type	Skin protection from Military Chemical/Biological Warfare Agents
Equipment Category	Protective sock, pull on with high comfort
Availability	Full Production anticipated by July 2000 Delivery: Standard Med – 60 d after order
Current User(s)	Versions in service with U.S. Navy, NATO Armed Forces, Civil Defense, and Malaysian Army
Manufacturer	CA Fashion Inc.
Manufacturer Type	Private, USA/Foreign
Developer	CEB
Source	Sales: INDEF Services Intl. 14847 Lee Highway Amissville, VA 20106–0089 540–937–7327 (Tel) 540–937–7328 (Fax) indefsteve@msn.com
Certification	Meets NATO Military Standard and tested to ERDEC Mil-Std by Natick

Operational Parameters

Chemical Warfare (CW) Agents Protected Against	All Military CW agents
Biological Warfare (BW) Agents Protected Against	All Military BW agents
Toxic Industrial (TIMs) Protected Against	Not applicable
Duration of Protection	Minimum 8 h against NATO standard challenge
Recommended Use(s)	Tactical operations, CBW response teams: Used with CB Protective Ensemble by ground personnel, air crews, and vehicle operators. Designed to be worn under boot.

Physical Parameters

Sizes Available	S, M, L, and XL
Weight	14 oz
Package Size and Volume	16 in x 6 in x 1.5 in—under 0.1 cuff
Power Requirements	None
Material Type	Permeable polyamide fabric face with integrated CB filter material and inner poly/cotton all bonded in laminate
Construction Type	Sewn
Color	Black

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Logistical Parameters

Ease of Use	Simple pull on; no training required. Socks provide maximum comfort (even in hot/humid conditions).
Consumables	None
Maintenance Requirements	None
Shelf Life	Estimated 6 yr to 8 yr
Transportability	Not applicable
Operational Limitations	Not for use with industrial HazMat
Environmental Conditions	-30 °F to +140 °F. Maintains protection if wet.
Unit Cost	\$27/pair
Maintenance Cost	None
Warranty	Replacement if manufacturing flaw found upon initial use within 12 mo of purchase
Don/Doff Information	Glove is worn over skin under boot. Can don without assistance.
Use/Reuse	Use minimum 14 d in normal wear
Launderability	Hand wash only up to 3 times (inspect for tears/wear after each)
Accessories	None

Special Requirements

Training Requirements	None
Training Available	None required
Manuals Available	None required
Surveillance Testing Requirements	Recommend periodic test of sample from each lot after 24 mo to 36 mo
Support Equipment	None
Testing Information	Meets NATO Standard Test Requirement for CB ensemble
Applicable Regulations	Not applicable
Health Hazards	None
Communications Interface Capability	Not applicable
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Tyvek® Labcoat

Item # 12



Technology

High density spunbonded polyethylene coated with polyethylene film

Stock Number

14300

Protection Type

Percutaneous

Equipment Category

Labcoat, snap front

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1
North McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer

Manufacturer Type

Developer

DuPont Protective Apparel

Source

DuPont Tyvek® Protective Apparel

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

Not applicable

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Hazardous dry particulates. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on hazardous dry particulates, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.
No test data for CW agents.

WORKING DRAFT

Recommended Use(s)

Crisis management (post decontamination); remediation

Physical Parameters

Sizes Available

S through XXXXL. Additional sizes available upon request.

Weight

5 lb/container, 30 unit/container

Package Size and Volume

14 7/8 in L x 10 1/2 in W x 7 1/2 in H

Power Requirements

Not applicable

Material Type

High density spunbonded polyethylene coated with polyethylene film

Construction Type

Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays

Color

White

Logistical Parameters

Ease of Use

Ergonomically designed for maximum mobility and flexibility

Consumables

None

Maintenance Requirements

Visual inspection prior to use

Shelf Life

Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.

Transportability

Easily transported

Operational Limitations

Directly relates to the physical condition of user

Environmental Conditions

Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.

Unit Cost

\$101/carton

Maintenance Cost

Minimum labor cost for routine suit inspection

Warranty

90 d for workmanship and materials

Don/Doff Information

No assistance required for donning and doffing. Average donning and doffing time is minimal.

Use/Reuse

Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations. Can be incinerated provided garment is not contaminated with hazardous or toxic materials.

Launderability

Not applicable. Not intended for reuse after exposure to hazardous materials.

Accessories

None

Special Requirements

Training Requirements

No special training required

Training Available

Yes. DuPont will provide specialized group training upon request.

Manuals Available

None required

Surveillance Testing Requirements

Visual inspection (for holes and tears) prior to use

WORKING DRAFT

Support Equipment

Appropriate respiratory, foot, eye/face, hand, and head protection

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 1.2 oz/yd²

Thickness (ASTM D1777–64) 5.3 mils

Strip tensile (in-lb) (ASTM D1682)(MD/CD) 7.9/7.6

Work to break (in-lb) (ASTM D1682) (MD/CD) 2.4/2.1

Tongue tear, lb (ASTM D2261 (MD/CD)

Barrier data available by calling 877–797–5907 or go to
www.dupont.com/tyvek/protective-apparel

Applicable Regulations

None

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tyvek® Labcoat

Item # 13



Technology

High density spunbonded polyethylene coated with polyethylene film

Stock Number

14301

Protection Type

Percutaneous

Equipment Category

Labcoat, snap front, and 2 pockets

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1 North
McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer

Manufacturer Type

Developer

DuPont Protective Apparel

Source

DuPont Tyvek® Protective Apparel

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

Not applicable

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Hazardous dry particulates. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on hazardous dry particulates, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel. No test data for CW agents.

Recommended Use(s)

Crisis management (post decontamination); remediation

WORKING DRAFT

Physical Parameters

Sizes Available	S through XXXXL. Additional sizes available upon request.
Weight	5 lb/container, 30 unit/container
Package Size and Volume	14 7/8 in L x 10 1/2 in W x 7 1/2 in H
Power Requirements	Not applicable
Material Type	High density spunbonded polyethylene coated with polyethylene film
Construction Type	Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	White

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$102/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations. Can be incinerated provided garment is not contaminated with hazardous or toxic materials.
Launderability	Not applicable. Not intended for reuse after exposure to hazardous materials.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	None required
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, eye/face, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 1.2 oz/yd²

Thickness (ASTM D1777–64) 5.3 mils

Strip tensile (in-lb) (ASTM D1682)(MD/CD) 7.9/7.6

Work to break (in-lb) (ASTM D1682) (MD/CD) 2.4/2.1

Tongue tear, lb (ASTM D2261 (MD/CD)

Barrier data available by calling 877–797–5907 or go to
www.dupont.com/tyvek/protective-apparel

Applicable Regulations

None

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tyvek® Shirt

Item # 14



Technology

High density spunbonded polyethylene coated with polyethylene film

Stock Number

14303

Protection Type

Percutaneous

Equipment Category

Shirt, snap front, and long sleeves

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1 North
McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer

Manufacturer Type

Developer

DuPont Protective Apparel

Source

DuPont Tyvek® Protective Apparel

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

Not applicable

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Hazardous dry particulates. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on hazardous dry particulates, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.
No test data for CW agents.

Recommended Use(s)

Crisis management (post decontamination); remediation

WORKING DRAFT

Physical Parameters

Sizes Available	S through XXXXL. Additional sizes available upon request.
Weight	5 lb/container, 30 unit/container
Package Size and Volume	14 7/8 in L x 10 1/2 in W x 7 1/2 in H
Power Requirements	Not applicable
Material Type	High density spunbonded polyethylene coated with polyethylene film
Construction Type	Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	White

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$98/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations. Can be incinerated provided garment is not contaminated with hazardous or toxic materials.
Launderability	Not applicable. Not intended for reuse after exposure to hazardous materials.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	None required
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, eye/face, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 1.2 oz/yd²

Thickness (ASTM D1777–64) 5.3 mils

Strip tensile (in-lb) (ASTM D1682)(MD/CD) 7.9/7.6

Work to break (in-lb) (ASTM D1682) (MD/CD) 2.4/2.1

Tongue tear, lb (ASTM D2261 (MD/CD)

Barrier data available by calling 877–797–5907 or go to
www.dupont.com/tyvek/protective-apparel

Applicable Regulations

None

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tyvek® Labcoat

Item # 15



Technology

High density spunbonded polyethylene coated with polyethylene film.
Pictured is stock # 14300
14344

Stock Number

Protection Type

Percutaneous

Equipment Category

Labcoat, snap front, 2 pockets, and elastic wrist

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1 North McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer

Manufacturer Type

Developer

DuPont Protective Apparel

Source

DuPont Tyvek® Protective Apparel

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

Not applicable

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Hazardous dry particulates. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on hazardous dry particulates, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.
No test data for CW agents.

Recommended Use(s)

Crisis management (post decontamination); remediation

WORKING DRAFT

Physical Parameters

Sizes Available	S through XXXXL. Additional sizes available upon request.
Weight	6 lb/container, 30 unit/container
Package Size and Volume	14 7/8 in L x 10 1/2 in W x 7 1/2 in H
Power Requirements	Not applicable
Material Type	High density spunbonded polyethylene coated with polyethylene film
Construction Type	Sewn sea—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	White

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$123/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations. Can be incinerated provided garment is not contaminated with hazardous or toxic materials.
Launderability	Not applicable. Not intended for reuse after exposure to hazardous materials.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	None required
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, eye/face, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 1.2 oz/yd²

Thickness (ASTM D1777–64) 5.3 mils

Strip tensile (in-lb) (ASTM D1682)(MD/CD) 7.9/7.6

Work to break (in-lb) (ASTM D1682) (MD/CD) 2.4/2.1

Tongue tear, lb (ASTM D2261 (MD/CD)

Barrier data available by calling 877–797–5907 or go to
www.dupont.com/tyvek/protective-apparel

Applicable Regulations

None

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tyvek® Labcoat

Item # 16



Technology

High density spunbonded polyethylene coated with polyethylene film
Pictured is stock # 14300
14347

Stock Number

Protection Type

Percutaneous

Equipment Category

Labcoat, snap front, and elastic wrist

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1 North
McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer

Manufacturer Type

Developer

DuPont Protective Apparel

Source

DuPont Tyvek® Protective Apparel

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

Not applicable

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Hazardous dry particulates. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on hazardous dry particulates, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.
No test data for CW agents.

Recommended Use(s)

Crisis management (post decontamination); remediation

WORKING DRAFT

Physical Parameters

Sizes Available	S through XXXXL. Additional sizes available upon request.
Weight	6 lb/container, 30 unit/container
Package Size and Volume	14 7/8 in L x 10 1/2 in W x 7 1/2 in H
Power Requirements	Not applicable
Material Type	High density spunbonded polyethylene coated with polyethylene film
Construction Type	Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	White

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$112/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations. Can be incinerated provided garment is not contaminated with hazardous or toxic materials.
Launderability	Not applicable. Not intended for reuse after exposure to hazardous materials.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	None required
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, eye/face, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 1.2 oz/yd²

Thickness (ASTM D1777–64) 5.3 mils

Strip tensile (in-lb) (ASTM D1682)(MD/CD) 7.9/7.6

Work to break (in-lb) (ASTM D1682) (MD/CD) 2.4/2.1

Tongue tear, lb (ASTM D2261 (MD/CD)

Barrier data available by calling 877–797–5907 or go to www.dupont.com/tyvek/protective-apparel

Applicable Regulations

None

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tyvek® Pants

Item # 17



Technology

High density spunbonded polyethylene coated with polyethylene film

Stock Number

14350

Protection Type

Percutaneous

Equipment Category

Pants, elastic waist

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1
North McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer

Manufacturer Type

Developer

DuPont Protective Apparel

Source

DuPont Tyvek® Protective Apparel

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

Not applicable

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Hazardous dry particulates. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on hazardous dry particulates, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.
No test data for CW agents.

Recommended Use(s)

Crisis management (post decontamination); remediation

WORKING DRAFT

Physical Parameters

Sizes Available	S through XXXXL. Additional sizes available upon request.
Weight	5 lb/container, 30 unit/container
Package Size and Volume	14 7/8 in L x 10 1/2 in W x 7 1/2 in H
Power Requirements	Not applicable
Material Type	High density spunbonded polyethylene coated with polyethylene film
Construction Type	Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	White

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$79/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations. Can be incinerated provided garment is not contaminated with hazardous or toxic materials.
Laundryability	Not applicable. Not intended for reuse after exposure to hazardous materials.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	None required
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, eye/face, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 1.2 oz/yd²

Thickness (ASTM D1777–64) 5.3 mils

Strip tensile (in-lb) (ASTM D1682)(MD/CD) 7.9/7.6

Work to break (in-lb) (ASTM D1682) (MD/CD) 2.4/2.1

Tongue tear, lb (ASTM D2261 (MD/CD)

Barrier data available by calling 877–797–5907 or go to
www.dupont.com/tyvek/protective-apparel

None

Applicable Regulations

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tyvek® Hood

Item # 18



Technology

High density spunbonded polyethylene coated with polyethylene film

Stock Number

14383

Protection Type

Percutaneous

Equipment Category

Hood, pull over, chest length, and elastic face

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1 North
McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer

Manufacturer Type

Developer

DuPont Protective Apparel

Source

DuPont Tyvek® Protective Apparel

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

Not applicable

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Hazardous dry particulates. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel. For specific test data on hazardous dry particulates, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel. No test data for CW agents.

Duration of Protection

Recommended Use(s)

Crisis management (post decontamination); remediation

WORKING DRAFT

Physical Parameters

Sizes Available	S through XXXXL. Additional sizes available upon request.
Weight	4 lb/container, 100 unit/container
Package Size and Volume	14 7/8 in L x 10 1/2 in W x 7 1/2 in H
Power Requirements	Not applicable
Material Type	High density spunbonded polyethylene coated with polyethylene film
Construction Type	Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	White

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$114/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations. Can be incinerated provided garment is not contaminated with hazardous or toxic materials.
Launderability	Not applicable. Not intended for reuse after exposure to hazardous materials.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	None required
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 1.2 oz/yd²

Thickness (ASTM D1777–64) 5.3 mils

Strip tensile (in-lb) (ASTM D1682)(MD/CD) 7.9/7.6

Work to break (in-lb) (ASTM D1682) (MD/CD) 2.4/2.1

Tongue tear, lb (ASTM D2261 (MD/CD)

Barrier data available by calling 877–797–5907 or go to www.dupont.com/tyvek/protective-apparel

Applicable Regulations

None

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tyvek® Hood

Item # 19



Technology

High density spunbonded polyethylene coated with polyethylene film

Stock Number

14386

Protection Type

Percutaneous

Equipment Category

Hood, pull over, shoulder length, and elastic face

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1 North
McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer
DuPont Protective Apparel
DuPont Tyvek® Protective Apparel
Not applicable

Manufacturer Type

Developer

Source

Certification

Operational Parameters

Chemical Warfare (CW)

Not applicable

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Hazardous dry particulates. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on hazardous dry particulates, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.
No test data for CW agents.

Recommended Use(s)

Crisis management (post decontamination); remediation

WORKING DRAFT

Physical Parameters

Sizes Available	Sm through XXXXL. Additional sizes available upon request.
Weight	4 lb/container, 100 unit/container
Package Size and Volume	14 7/8 in L x 10 1/2 in W x 7 1/2 in H
Power Requirements	Not applicable
Material Type	High density spunbonded polyethylene coated with polyethylene film
Construction Type	Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	White

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$100/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations. Can be incinerated provided garment is not contaminated with hazardous or toxic materials.
Launderability	Not applicable. Not intended for reuse after exposure to hazardous materials.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	None required
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 1.2 oz/yd²

Thickness (ASTM D1777–64) 5.3 mils

Strip tensile (in-lb) (ASTM D1682)(MD/CD) 7.9/7.6

Work to break (in-lb) (ASTM D1682) (MD/CD) 2.4/2.1

Tongue tear, lb (ASTM D2261 (MD/CD)

Barrier data available by calling 877–797–5907 or go to
www.dupont.com/tyvek/protective-apparel

Applicable Regulations

None

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tyvek® Hood

Item # 20



Technology

High density spunbonded polyethylene coated with polyethylene film

Stock Number

14388

Protection Type

Percutaneous

Equipment Category

Hood, pull over, shoulder length, and face shield

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1 North
McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer
DuPont Protective Apparel
DuPont Tyvek® Protective Apparel
Not applicable

Manufacturer Type

Developer

Source

Certification

Operational Parameters

Chemical Warfare (CW)

Not applicable

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Hazardous dry particulates. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on hazardous dry particulates, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 610, or go to www.dupont.com/tyvek/protective-apparel.
No test data for CW agents.

Recommended Use(s)

Crisis management (post decontamination); remediation

WORKING DRAFT

Physical Parameters

Sizes Available	S through XXXXL. Additional sizes available upon request.
Weight	3 lb/container, 25 unit/container
Package Size and Volume	14 7/8 in L x 10 1/2 in W x 7 1/2 in H
Power Requirements	Not applicable
Material Type	High density spunbonded polyethylene coated with polyethylene film
Construction Type	Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	White

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after five years storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$80/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations. Can be incinerated provided garment is not contaminated with hazardous or toxic materials.
Launderability	Not applicable. Not intended for reuse after exposure to hazardous materials.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	None required
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 1.2 oz/yd²

Thickness (ASTM D1777–64) 5.3 mils

Strip tensile (in-lb) (ASTM D1682)(MD/CD) 7.9/7.6

Work to break (in-lb) (ASTM D1682) (MD/CD) 2.4/2.1

Tongue tear, lb (ASTM D2261 (MD/CD)

Barrier data available by calling 877–797–5907 or go to
www.dupont.com/tyvek/protective-apparel

Applicable Regulations

None

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tychem® QC Labcoat

Item # 21



Technology

Selectively impermeable composite consisting of thermoplastic barrier films laminated to high strength thermoplastic nonwoven fabrics

Stock Number

35300

Protection Type

Percutaneous

Equipment Category

Labcoat, snap front

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1 North
McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)

Manufacturer Type

Domestic manufacturer

Developer

DuPont Protective Apparel

Source

DuPont Tyvek® Protective Apparel

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

Not tested

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Many inorganic acids, bases, and other liquid chemicals such as pesticides. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 616, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on TIMs, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 616, or go to www.dupont.com/tyvek/protective-apparel. No test data available for CW agents

Recommended Use(s)

Crisis management (post decontamination); medical triage; and remediation

WORKING DRAFT

Physical Parameters

Sizes Available	S through XXXXL. Additional sizes available upon request.
Weight	5 lb/container, 12 units/container
Package Size and Volume	14 7/8 in L x 10 in W x 10 in H
Power Requirements	Not applicable
Material Type	Selectively impermeable composite consisting of thermoplastic barrier films laminated to high strength thermoplastic nonwoven fabrics
Construction Type	Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	Yellow, Grey

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$59/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations.
Launderability	Not applicable. Not intended for reuse after exposure to toxic chemicals. Dirt and dust can be manually removed with soap and water.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	Permeation Guide available
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, eye/face, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 2.1 oz/yd²

Thickness (ASTM D1777–64) 6.0 mils

Mullen burst (ASTM D3786–87) 66 psi

Breaking strength—Grab (md/xd) (ASTM D1682–64, sec. 5.3) 25/35 lb

Tearing strength—Trapezoid (md/xd) (ASTM D1117–80) 7/5 lb

Permeation data available by calling 877–797–5907 or go to
www.dupont.com/tyvek/protective-apparel

None

Applicable Regulations

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit

WORKING DRAFT

General

Name

Tychem® QC Shirt

Item # 22



Technology

Selectively impermeable composite consisting of thermoplastic barrier films laminated to high strength thermoplastic nonwoven fabrics

Stock Number

35303

Protection Type

Percutaneous

Equipment Category

Shirt, snap front, and long sleeves

Availability

Commercial

Current User(s)

U.S. Government/military, local government/fire department, emergency response teams, general industry, remediation companies, and chemical manufacturing. Specific organizations currently using item available upon request.

Manufacturer

DuPont Tyvek® Protective Apparel
U.S. Highway #1 North
McBee, SC 29101
800-845-6962 (Tel)
843-335-8599 (Fax)
e-mail: Mary-Ann.Daniel@usa.dupont.com
POC: M. A. Daniel
888-577-6960 (Tel)
Domestic manufacturer

Manufacturer Type

Developer

DuPont Protective Apparel

Source

DuPont Tyvek® Protective Apparel

Certification

Not applicable

Operational Parameters

Chemical Warfare (CW)

Not tested

Agents Protected Against

Biological Warfare (BW)

Not specified

Agents Protected Against

Toxic Industrial (TIMs)

Protected Against

Many inorganic acids, bases, and other liquid chemicals such as pesticides. For specific test data, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 616, or go to www.dupont.com/tyvek/protective-apparel.

Duration of Protection

For specific test data on TIMs, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request document 616, or go to www.dupont.com/tyvek/protective-apparel. No test data available for CW agents.

Recommended Use(s)

Crisis management (post decontamination); medical triage; remediation

WORKING DRAFT

Physical Parameters

Sizes Available	S through XXXXL. Additional sizes available upon request.
Weight	5 lb/container, 12 units/container
Package Size and Volume	14 7/8 in L x 10 in W x 10 in H
Power Requirements	Not applicable
Material Type	Selectively impermeable composite consisting of thermoplastic barrier films laminated to high strength thermoplastic nonwoven fabrics
Construction Type	Sewn seam—overedge serged seam construction offers protection against many dry particulates and light sprays
Color	Yellow, grey

Logistical Parameters

Ease of Use	Ergonomically designed for maximum mobility and flexibility
Consumables	None
Maintenance Requirements	Visual inspection prior to use
Shelf Life	Store in a cool, dry environment in original packaging. Manufacturer recommends designating "for training use only" after 5 yr of storage.
Transportability	Easily transported
Operational Limitations	Directly relates to the physical condition of user
Environmental Conditions	Can be used in all common outdoor weather conditions and climates. Rain, snow, extreme temperatures and humidity will have no effect on the suit.
Unit Cost	\$53/carton
Maintenance Cost	Minimum labor cost for routine suit inspection
Warranty	90 d for workmanship and materials
Don/Doff Information	No assistance required for donning and doffing. Average donning and doffing time is minimal.
Use/Reuse	Discard after use. Decontamination specific to chemical exposure. Disposal per jurisdictional regulations.
Launderability	Not applicable. Not intended for reuse after exposure to toxic chemicals. Dirt and dust can be manually removed with soap and water.
Accessories	None

Special Requirements

Training Requirements	No special training required
Training Available	Yes. DuPont will provide specialized group training upon request.
Manuals Available	Permeation Guide available
Surveillance Testing Requirements	Visual inspection (for holes and tears) prior to use
Support Equipment	Appropriate respiratory, foot, eye/face, hand, and head protection

WORKING DRAFT

Testing Information

Physical properties:

Basis weight (ASTM D3776–85) 2.1 oz/yd²

Thickness (ASTM D1777–64) 6.0 mils

Mullen burst (ASTM D3786–87) 66 psi

Breaking strength—Grab (md/xd) (ASTM D1682–64, sec. 5.3) 25/35 lb

Tearing strength—Trapezoid (md/xd) (ASTM D1117–80) 7/5 lb

Permeation data available by calling 877–797–5907 or go to
www.dupont.com/tyvek/protective-apparel

Applicable Regulations

None

Health Hazards

None

Communications Interface

Not applicable

Capability

EOD Compatibility

Compatible with EOD suit